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09/349,198	07/07/1999	CHRISTOPHER F. PARKER	063170.6564	6293
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BAKER BOTTs L.L.P.			EXAMINER	
2001 ROSS AVENUE			COLBERT, ELLA	
SUITE 600				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)
	09/349,198	PARKER, CHRISTOPHER F.
	Examiner Ella Colbert	Art Unit 3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 March 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 and 12-20 is/are rejected.
- 7) Claim(s) 5 and 6 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 March 2007 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/21/07.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. Claims 1-6 and 12-20 are pending. Claim 1 has been amended in this communication filed 03/21/07 entered as Response After Non-Final and IDS.
2. The IDS filed 3/21/07 has been considered and entered.
3. The Drawing Objections to Fig.'s 2 and 3 have been overcome by Applicants' amendment to the drawings and is hereby withdrawn.
4. The Objection to Applicants' Specification has been overcome by the amendment to Applicants' drawings and is hereby withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claims 1-4 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,721,915) Sockut et al, hereafter Sockut in view of (US 5,517,641) Barry et al, hereinafter Barry.

With respect to claim 1, Sockut teaches, a database table recovery system operable to: (col. 1, lines 20-33 and col. 9, lines 19-22) retrieve a backup copy of a tablespace; apply updates to the backup copy from a log associated with a database table; and to restore the database table associated with the tablespace from the updated backup copy without recovering the tablespace (col. 2, lines 4-11, col. 3, lines 61-67, and col. 4, lines 1-17).

Sockut fails to teach, a tablespace access system coupled to the table recovery system, the tablespace access system is operable to restrict access to the tablespace to read-only access. Barry teaches, a tablespace access system coupled to the table recovery system, the tablespace access system is operable to restrict access to the tablespace to read-only access (col. 2, lines 65-67 and col. 3, lines 1-12 and lines 34-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a tablespace access system coupled to the table recovery system, the tablespace access system is operable to restrict access to the tablespace to read-only access and in view of Sockut's teachings in col. 8, lines 57-67, col. 9, lines 1-18 and lines 37-44 of database performance and to modify in Sockut because such a modification would allow Sockut's system to have independent recovery of the data and indexes and a significant decrease in elapsed time since the log file updates are done for all objects in the database through the log file.

With respect to claim 2, Sockut teaches, the table recovery system further comprises a log record sorter system operable to sort log records from the log (col. 7, lines 25-36).

With respect to claim 3, Sockut teaches, a data page updater system coupled to the log record sorter system operable to apply log record updates to the backup copy (col. 7, lines 37-62).

With respect to claim 4, Sockut teaches, a data page scanner system coupled to the data page updater system, the data page scanner system operable to locate records associated with the database table in at least one data page (col. 11, lines 41-67 and col. 12, lines 1-11).

With respect to claim 12, Sockut teaches, receiving a backup copy of the tablespace having one or more database tables (col. 9, lines 19-32), reading log records

associated with a first database table in the one or more database tables (col. 4, lines 5-11), applying the log records to the backup copy without modifying the configuration of the tablespace (col. 4, lines 22-29), building new table data pages from the backup copy (col. 14, lines 66-67), scanning the new table data pages for records of the first database table (col. 11, lines 52-66), and updating the first database table from the records (col. 14, lines 12-22). Sockut failed to teach, reading log records associated with a first database table in the one or more database tables, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to read log records associated with a first table in the one or more tables and to modify in Sockut because such a modification would allow the data to be read and updated in the first table before it is copied to the new table/tables and a backup copy is made of the data pages.

With respect to claim 13, Sockut failed to teach, limiting access of the second table to the tablespace to read-only before the first table is updated and the second table depends on the tablespace. Barry teaches, limiting access of the second table to the tablespace to read-only before the first table is updated and the second table depends on the tablespace (col. 5, lines 12-31). It would have been obvious to one having ordinary skill in the art at the time the invention was made to limit access of the second table to the tablespace to read-only before the first table is updated and the second table depends on the tablespace and to modify in Sockut because such a modification would allow Sockut to have the capability of retrieving the tablespace but not being able to change it prior to the first table being updated. It is well known in the art that a read-only document can be displayed or printed but not altered in any way; read-only memory (ROM) holds programs that cannot be changed.

With respect to claim 14, Sockut failed to teach, providing update access to the second table after the first table is updated. Barry teaches, providing update access to the second table after the first table is updated (col. 4, lines 19-61). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide update access to the second table after the first table is updated and to modify in Sockut because such a modification would allow the second table to be updated in successive order since the first table is first to receive the update with the second table following which is in chronological order. Relational database management systems usually work with two data tables at the same time, relating the information or data through links established by a common column or field. A tablespace stores one or more tables containing file pages.

With respect to claim 15, Sockut teaches, sorting the log records (col. 12, lines 51-65).

With respect to claim 16, Sockut teaches, deleting the rows (col. 9, lines 64-67). Sockut failed to teach, locking the indices. Barry teaches, locking the indices (col. 7, lines 10-31). It would have been obvious to one having ordinary skill in the art at the time the invention was made to lock the indices and to modify in Sockut because such a modification would eliminate the space needed for the indices and the time needed for accessing the indices.

With respect to claim 17, Sockut teaches, building one or more table data pages from the backup copy having the log records applied (col. 3, line 61-67 and col. 4, lines 1-30); selecting one or more records from the one or more database table data pages, the one or more records belonging to the first database table (col. 5, lines 56-67 and col. 6, lines 1-34); updating the first database table with the one or more records selected from the one or more table data pages while allowing access to the rest of the

one or more database tables in the tablespace (col. 6, lines 35-50); and wherein the first database table can be recovered without having to recover the tablespace entirely (col. 7, lines 13-56).

This independent claim is rejected for the similar rationale given for claim 12.

With respect to claim 18, Socket teaches, allowing at least one or more tables to have update access to the tablespace when the first table is restored (col. 12, lines 18-25).

With respect to claim 19, Socket teaches, deleting all of the rows of the first database table (col. 9, lines 64-67). Sockut fails to teach, locking out access to indices in the first database table. Barry teaches, locking out access to indices in the first database table (col. 7, lines 52-67 and col. 8, lines 1-4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to lock out access to indices in the first database table and to modify in Sockut because such a modification would eliminate the space needed for the indices (index) and the time needed for accessing the indices (index).

With respect to claim 20, Socket teaches, reading the log records from the log record file to a log record workspace (col. 4, lines 5-11), sorting the log records (col. 4, lines 11-17), and applying the log records to the tablespace backup copy (col. 4, lines 22-29 and col. 9, lines 19-22).

Allowable Subject Matter

8. Claims 5 and 6 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter: Applicant's page row extractor system coupled to the data page scanner system and operable to extract page rows from at least one data page that has been

located by the data page scanner system in claim 5 and in claim 6 "a page row extractor system coupled to the data page scanner system and operable to extract the page rows from at least one data page that has been located by the data page scanner system" and "the table row inserter system coupled to the page row extractor system operable to write extracted page rows to the database table", was not disclosed, made obvious or fairly suggested by the prior art of record.

Response to Arguments

10. Applicants' arguments filed 3/21/07 have been fully considered but they are not persuasive.

Issue no. 1: Applicants' argue: Independent claim 1, the proposed Sockut-Barry combination fails to disclose, teach or suggest each and every limitation recited in claim 1 and to establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP 2143-03. This argument has been fully considered but is not persuasive. Response: In response to Applicants' argument that the Office Action fails to provide motivation is not persuasive because a suggestion/ motivation need not be expressly stated in one or all of the references used to show obviousness. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir. 1985); *In re Scheckler*, 438 F.2d 999, 1001, 168 USPQ 716, 717 (CCPA 1971). It is assumed that which is taught in the reference relies to some extent on the knowledge of persons skilled in the art to complement that which is known and the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied reference. Further, the skilled artisan is presumed

to know something more about the art than only what is disclosed in the applied reference/references. In other words, the person having ordinary skill in the art has a level of knowledge apart from the content of the references. *In re Bode*, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977); *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962). A conclusion of obviousness is established "from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969). Sources of Rationale Supporting a Rejection under 35 U.S.C. 103: Rationale may be in a reference, or reasoned from common knowledge in the art, scientific principles, art- recognized equivalents, or legal precedent. See MPEP 2144.

Issue no. 2: Applicants' argue: Applicants' argue that the Examiner merely located the terms backup and tablespace in Sockut, but that the disclosures in Sockut that the Examiner apparently equates with the other limitations in claim 1 (some of which reference backup copy and tablespace) do not relate to this disclosure of the purported backup copying in Sockut has been considered but is not persuasive.

Response: Sockut discloses in col. 9, lines 19-32 "a backup copy of the new tablespace or partition is a basis for future recoverability ...". Therefore, it is interpreted that Sockut does disclose the first two claim limitations of claim 1 and Barry discloses the other claim limitations of claim 1. Also, the Applicants' are not reciting all of the claim limitations of claim 1 in the arguments.

Issue no. 3: Applicants' argue: the cited portions of Barry do not disclose, teach, or suggest "a tablespace access system coupled to the table recovery system, wherein the tablespace access system is operable to restrict access to the tablespace to read-only access and the Examiner has not provided the requisite teaching, suggestion, or motivation either in the knowledge generally available to one of ordinary skill in the art at the time of Applicants' invention to combine these references in the manner the Examiner proposes has been considered but is not persuasive. Response: It is interpreted that Barry discloses these claim limitations in col. 2, line 65-col. 3, line 12 and lines 34-40 above. As for the motivation to combine Sockut and Barry, both are in the same field of endeavor. Both references disclose a tablespace and the reorganization and recovery of a database table.

Issue no. 4: Applicants' argue: The claimed invention taken as a whole cannot be said to be obvious without some reason given in the references why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention and the Applicants' respectfully submit that the Examiner has merely pieced together disjointed portions of references with the benefit of hindsight using Applicants' claims as a blueprint, in an attempt to reconstruct Applicants' claims has been considered but is not persuasive. Response: In response to Applicants' argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The support for the teachings and evidence is considered to be provided in the references taken and read as a whole and not simply the columns and lines cited by the Examiner and the motivational statements are disclosed in the rejection above.

The same response to the argument for Independent claims 12 and 17 is considered to have been discussed above for claim1.

Issue no. 5: Applicants' argue: Applicants' issue a statement commenting on the Examiner's statement of reasons of allowance for claims 5 and 6 and disagrees with the

Examiner's reasons for allowance to the extent that they are inconsistent with applicable case law, statutes, and regulations has been considered but is not persuasive.

Response: The Examiner asks, what other reasons are the claims considered allowable by the Applicants' other than the reasons given by the Examiner and what applicable case law, statutes, and regulations make these reasons for allowance improper? The limitations of claims 5 and 6 are considered by the office as the allowable feature(s) of the invention. A specific reason for allowance and allowable subject matter must be given by an Examiner in order to allow an application.

Furthermore, the present Examiner in ten years of patent examination has never had an application not to pass quality review for being allowed.

Conclusion: Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Examiner carefully drew up a correspondence of each of Applicants' claimed limitations, one or more referenced passages in Sockut and Barry what is well known in the art and what is obvious to one having ordinary skill in the art at the time the invention was made.

The Examiner is entitled to give limitations their broadest reasonable interpretation in light of the Specification (see below):

2111 Claim Interpretation; Broadest Reasonable Interpretation [R-1]

>CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once

issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541, 550-51 (CCPA 1969).<

Inquiries

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Wednesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 9, 2007



ELLA COLBERT
PRIMARY EXAMINER